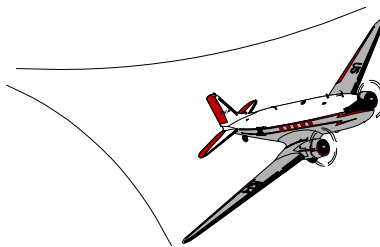


SPECIAL AIRWORTHINESS INFORMATION BULLETIN

Aircraft Certification Service
Washington, DC



U.S. Department
of Transportation

**Federal Aviation
Administration**

No. CE-02-42
August 9, 2002

We post SAIBs on the internet at "av-info.faa.gov"

This is information only. Recommendations are not mandatory.

Introduction

This Special Airworthiness Information Bulletin (SAIB) provides safety information to **Schempp-Hirth Ventus-2cM**, **Discus bM**, and **Nimbus-4DM**, sailplane owners on the following:

Model	Serial Number(s)
Ventus-2cM	44 and 46-120
Discus bM	1-9
Nimbus-4DM	1, 3-8, 10-19 and 21-48

- Propeller Hub Bearing
- Spindle Drive Overload Safety Device
- Supplements to the Maintenance Manual

Background

Schempp-Hirth reported that one Ventus-2cM propeller bearing hub failed after 11 hours of operation. A surface discontinuity at the transition from the front seat of the roller bearing to the conical part of the hub caused the failure. Schempp-Hirth has developed Technical Note 825-31, 863-7, and 868-5, which incorporate installation of a reinforced hub and belt pulley. The German Luftfahrt-Bundesamt (LBA) has issued Airworthiness Directive 2002-199 for German registered sailplanes.

Recommendation

The FAA highly recommends that the U.S. owner/operators comply with the referenced Schempp-Hirth Technical Note. We have included a copy of the Technical Note for your information.

The FAA provides this information as a courtesy to operators of the Schempp-Hirth Models Ventus-2cM, Discus bM, and Nimbus-4DM because this is a known safety issue. We do not issue Airworthiness Directives for sailplanes that do not have a U.S. type certificate. We will not track or enforce this safety issue. Furthermore, the FAA will not use an SAIB to track all safety related items for non-type certificated products.

For Technical Information Concerning These Safety Issues Contact

Schempp-Hirth Flugzeugbau GmbH, Postfach 14 43, D-73222 Kirchheim/Tech, Federal Republic of Germany; phone 49.7021.7298-0; fax 49.7021.7298-199.

Further Information Contact

Tom Knauff, United States Schempp-Hirth Dealer, 3523 South Eagle Valley Road, Jullian, PA 16844; phone (814) 355-2483; fax (814) 355-2633.

Mike Kiesov, Aerospace Engineer/Pilot, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri, 64106; phone (816) 329-4144; fax (816) 329-4090, email; mike.kiesov@faa.gov

SCHEMPP-HIRTH Flugzeugbau GmbH. Kirchheim/Teck	Technical Note No. 825-31, 863-7, 868-5	Page: 01 No. of pages: 03
<u>SUBJECT:</u> <u>AFFECTED:</u> <u>URGENCY:</u> <u>REASON:</u> <u>ACTIONS:</u>	<div data-bbox="519 325 966 409"> <ul style="list-style-type: none"> - Hub of propeller bearing - Spindle drive overload safety device - Supplements Maintenance Manual </div> <div data-bbox="519 472 1193 703"> <ul style="list-style-type: none"> - Powered sailplane model Ventus-2cM (ATC No. 825) (when equipped with the SOLO engine type 2625-01) S/N 44 and 46 through 120 - Powered sailplane model Discus bM (ATC No. 863) S/N 1 through 9 - Powered sailplane model Nimbus-4DM (ATC No. 868) S/N 1, 3 through 8, 10 through 19 and 21 through 48 </div> <div data-bbox="519 787 1096 850"> <p>Within the next 5 engine hours and not later than December 31st, 2002</p> </div> <div data-bbox="519 934 1356 1134"> <p>On one Ventus-2cM the hub of the propeller bearing has failed after 11 engine hours. The fatigue failure was caused by a surface discontinuity at the transition from the front seat of the roller bearing to the conical part of hub. A new replacement reinforced hub together with the modified large belt pulley is now used.</p> </div> <div data-bbox="519 1218 1356 1669"> <ol style="list-style-type: none"> 1. Remove the large belt pulley together with the hub according the instructions section 5.10 of the Maintenance Manual. 2. Install the <u>modified large belt pulley</u> and the <u>mounted new hub</u> according the instructions section 5.10 of the Maintenance Manual. 3. Adjust the tension of the drive belt according the instructions section 5.11 and 5.12 of the Maintenance Manual. 4. Mechanical spindle overload safety device. <u>Powered sailplane Discus bM</u> S/N 1 through 9 <u>Powered sailplane Nimbus-4DM</u> S/N 1, 3 through 8, 10 through 19, 21 through 24 and 26 through 29 Install the spindle overload safety device according the instructions section 5.13 of the Maintenance Manual. </div>	

ACTIONS:

(ctd.)

5a. Powered sailplane Discus bM

Supplements of the Maintenance Manual
(revised pages dated June 2002)

<u>Page</u>	<u>Title</u>
0.1.1	Record of revisions
0.2.1	List of effective pages ^{*)}
0.2.2	List of effective pages ^{*)}
0.3.2	Table of contents
5.10.1	Toothed drive belt, removal-installation
5.10.2	
5.10.3	
5.10.4	
5.10.5	
5.11.1	Measuring tension toothed drive belt
5.11.2	
5.11.3	
5.11.4	
5.11.5	
5.12.1	Adjusting tension of drive belt
5.12.2	
5.13	Spindle drive overload safety device

^{*)} List of effective pages to be amended by hand

5b. Powered sailplane Nimbus-4DM

S/N 1, 3 through 8, 10 through 19, 21 through 24 and 26 through 29

Supplements of the Maintenance Manual
(revised pages dated June 2002)

<u>Page</u>	<u>Title</u>
0.1.6	Record of revisions
0.2.1	List of effective pages ^{*)}
0.2.2	List of effective pages ^{*)}
0.3.2	Table of contents
5.10.1	Toothed drive belt, removal-installation
5.10.2	
5.10.3	
5.10.4	
5.10.5	
5.11.1	Measuring tension toothed drive belt
5.11.2	
5.11.3	
5.11.4	
5.11.5	
5.12.1	Adjusting tension of drive belt
5.12.2	
5.13	Spindle drive overload safety device

^{*)} List of effective pages to be amended by hand

SCHEMPP-HIRTH Flugzeugbau GmbH. Kirchheim/Teck	Technical Note No. 825-31, 863-7, 868-5	Page: 03 No. of pages: 03
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ACTIONS: (ctd.)

6.a) All functions should be checked included retraction and extension of the power plant.

b) An engine test run must be performed.

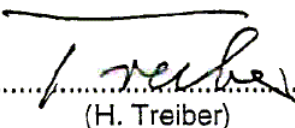
MATERIAL:

<u>Item</u>	<u>Draw.-No. / Norm</u>	<u>Title</u>
1	WB-S 03 II/1	Large belt pulley (large belt pulley according drawing No. WB-S 03 II modified)
1	WB-S 04 I	Hub for large belt pulley
1	320/22	Tapered roller bearing
1	WB-S5/2	Washer
1	M20x1,5, DIN 937	Caste nut
1	3,2x40, DIN 94	Cotter pin
1	M03 RT 965	Spindle overload safety device
2	T 80 L	cable tie

WEIGHT: Alteration negligible

C.G. POSITION: Alteration negligible

REMARK: This actions may be accomplished by an experienced person and to be checked and entered in the log book by a licensed inspector.

Kirchheim/Teck, June 10 th , 2002 <div style="text-align: center;">  Issued: (H. Treiber) </div>	<u>LBA-approved:</u> The German original has been approved by the LBA under the date of <div style="text-align: right;">19. JUNI 2002</div> and is signed by Mr. <u>Blume</u> The translation into English has been done by best knowledge and judgement.
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